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AN
APPENDAGE
TO THE
TOILET:
OR
AN ESSAY
ON THE
MANAGEMENT of the TEETH.

DEDICATED
TO THE LADIES.

By HUGH MOISES, M.D.

AMICUS CICERO, AMICUS PLATO, SED MAGIS AMICUS VERITAS.

LONDON:

Printed for the Authour, and publish'd by Hookham
and Carpenter, Old Bond-street.

Entered at Stationers Hall;

[PRICE ONE SHILLING.]



MVSEVM
BRITAN.
NICVM

TO

THE LADIES.

ALTHOUGH the symmetry and features of every woman are not alike beautiful—yet must every woman be attractive and pleasing who has been so fortunate as to preserve a beautiful and good set of teeth beyond that period in which the more fleeting and less important beauties of the face have sunk below the common standard. The British ladies have justly held the palm of beauty in preference to those of any other nation,

nation, and the sons of Britain proudly boast that preference. Yet what would be the echo of admiring nations were they told that my fair countrywomen were daily robbed of an essential part of their beauty by *imprudence* or *neglect* in the management of their teeth. I will not proclaim the extent of such loss—but I will caution the lovely fair as becomes the duty of

their faithful Servant,

THE AUTHOUR.

T O

THE READER.

WHEN we consider the formation of the teeth, their extensive and essential utility, their effect in distorting or regulating the symmetry of our features, and the many painful diseases to which they are liable, and to which they are daily exposed, by the indolence of some and the imprudence of others, we cannot withhold our surprise

at the ignorance which is found to prevail in the management of these ornamental and useful members.

It is true that professional men have noticed them in a cursory manner in their voluminous publications. Yet it were not to be supposed that any other than professional men should ransack the pages of philosophic volumes in search of a selection of facts, which, although intimately connected with the health and comfort of every individual, have been sedulously held from the knowledge of mankind.

It is the duty of a professional man to rescue from disease and deformity the features of his fellow creatures. It is the duty of others to attend to the cautions and directions

rections he should give for their management.

Had any other man, better able to direct and more deserving of attention (as no doubt there are many) done his duty in this respect, my pen would not have traced these pages.

I am unwilling however that further mischief should ensue from so dangerous a silence, and perchance my feeble efforts to inform, may excite the tutorage of some more able master. To expose the fallacy of *nostrums*, to preserve unto old age the transcendant beauty of the *british fair*, (by enabling each to judge for herself in the management of the teeth) and to procure a
fund

fund for the relief of orphans, are the only motives which have given rise to the following Essay. It contains a number of facts, cautions, and directions essentially necessary to be known by every one who is solicitous to obtain and preserve to the teeth a sound and perfect state. Facts which are the result of many experiments, and directions which have arisen from much reflection.

Yet I will not presume to say it is complete; it may one day be improved and rendered more perfect. In the interim it may have the effect of preserving teeth which are yet perfect and of preventing the ultimate consequence of injuries even now practised upon others.

AN ESSAY, &c.

ANY scientific or anatomical description would be foreign to the purport of this Essay: I shall therefore only observe that the teeth are plentifully supplied and in every part pervaded by bloodvessels and nerves, and are consequently equally liable and as much exposed to disease as any other part of our bodies. Teeth liable to disease.

To this fact many hundreds daily give a painful proof, whose indolence, ignorance, or imprudence have rendered extraction necessary.

Extraction
of teeth.

I perfectly agree with Dr. Senate that the extraction of a tooth is painful, and as performed by Empiricks dangerous; yet surely he does not mean *seriously* to advance that it is "seldom necessary, and always precarious." The Doctor either knows or ought to know, that extraction is the *only radical cure* of a cariated tooth.

Office of
the teeth.

As the teeth are destined for the important office of breaking down our food and reducing it into a state best fitted for digestion, it became necessary
that

that their structure should be firm and capable of resisting to a certain degree the impressions which might otherwise have been made on them in the mastication of certain foods. To this end our ever provident Creator has furnished them with a Structure of the teeth. case or shell, called the *enamel*, which is infinitely harder than the bone itself, and which shields the latter from numberless injuries by which its texture would be impaired or destroyed. .

To preserve this enamel, therefore, in its natural healthy state should be our first and principal care, especially as the slightest exposure of the bony substance will produce a disease called

TOOTH

TOOTH ACH.

OF this disease Nosologists have enumerated eight species or varieties, and I might probably have extended the number in a very considerable degree were it essential to the general intent of this Essay. At present however I shall confine myself to those more frequent and immediate causes of this painful disease, which are daily found to be productive of the most distressing symptoms, and which, through the negligence or ignorance of professional men are too often treated as cases of little moment, until the sufferer is driven by the violence of pain to seek relief from Empiricks, who regardless
of

of the future consequences, and attentive only to the acquisition of wealth, deal out with liberal hands their DEADLY NOS-^{Nostrums,} TRUMS :—For *deadly* I must deem them if their preparation can require concealment; and *deadly* I will prove them both by reason and analysis.

The concealment of a remedy which might be productive of real and permanent utility to mankind is a fraud upon society. The concealment of a *nostrum* and its frequent misapplication is not seldom found to have annihilated the first blessing of creation.

It is this mystery, this concealment, which must ever distinguish the empirick
c from

from the man of science.—It is a mystery which the liberal practitioner can never be led to adopt.—It is an assassin to the health of thousands, and is a species of robbery only calculated to evade the law and aggrandize the sycophant and cheat. But to return.—

Tooth-ach
what

The Tooth-ach consists in acute pain of one or more teeth, but more frequently is confined to one and from it diffused over the adjacent parts.

Although a rheumatic affection in this situation may at times occur from exposure to cold, yet this disease arises more frequently from caries of the tooth itself, affected by different irritating causes.

This

This caries generally commences in one point or spot, but sometimes in more, and proceeds with various rapidity, according to the nature of the tooth, and the violence with which the cause acts. It begins externally with a small black spot, which is superficial, but which soon spreads and enters the substance of the tooth; and this caries never becomes painful till it penetrates the situation of the nerve.

Caries of
the teeth.

The pain of the Tooth-ach is more acute than that of almost any other disease, and has been known in some cases to have even deprived the patient of reason. The pain is chiefly felt towards the root or fang of the tooth, sometimes along the gum and one side of the jaw.

Pain of
tooth-ach.

The

Radical
cure of
tooth-ach.

The *only radical cure* of Tooth-ach from *caries*, is extraction. This I do affirm in opposition to the constant jargon of every nostrum-vender; and which opinion I will support although an host of Empiricks should rise in judgment against me: for the teeth differ from all other bones in being incapable of exfoliation.

Palliative
cure of
tooth-ach.

Yet before having recourse to this last expedient, a palliative treatment may be attempted, and the indications that present with this view are,

1. To relieve the urgency of pain; and
2. To stop the progress of the caries.

To

To accomplish the first of these each ^{Specifics} Empirick will tell you he has an infal- ^{why inju-} lible specific. Yet as the major part of them have in their composition strong and concentrated acids, I would recommend to my fair readers not to depend on their use, for although they may relieve for the moment, yet their effects, as I shall hereafter shew, may be attended with others more painful and injurious, than those which they were intended to remove. Some permanent relief may however be obtained by the introduction of aromatics or essential oils into the cariated part, as *oil of cloves*, oil of thyme or mint, &c. or by narcotic stimulants, as opium, camphire, &c.

Relief

Relief from pain. Relief may also be derived from irrita-

tion produced on the contiguous parts where the pain is diffused, as by blisters behind the ear, touching the ear with the actual cautery; but more easily, and frequently with equal effect, by chewing the pyrethrum or pellitory of Spain.

Effects of the pyrethrum.

This last produces a plentiful flow of saliva, in proportion as the root is more or less pure and to the quantity made use of. This flow of saliva effectually cleanses the mouth, gums, and teeth from any viscid or putrid matters which might have been previously lodged on those parts; and which by being allowed to remain there, become acrid and irritating causes sufficient of themselves to produce caries, tooth-ach,

ach, and all their concomitants, as loss of appetite, indigestion, febrile affections, &c.

It is this plant which forms the base and most efficient part of a Powder and Tincture which bears my name, and which, although they are not altogether free from the objections which I shall have occasion to make on the use of preparations of this kind, are nevertheless devoid of any thing which could possibly injure the teeth, and which, although they may not in every case produce the desired effect, yet are well deserving of attention.

It may be supposed I have said thus much in favour of the preparation alluded to,

to, in order to recommend it to my readers as an *infallible remedy, superior to all others* of the like kind. But I disclaim every form of language or views, which have for their object such a tendency.

To such as may do me the honour to consult me, I shall afford convincing proofs that, in whatsoever I have done, or may hereafter do, the welfare of my fellow creatures has, and will ever take place of individual interest.

To stop the
progress of
caries.

The second indication, *to stop the progress of the caries*, depends on very accurately filling up the cariated part, with lead, gold, or some adhesive resinous gum, so as effectually to prevent the

admission of air or any other matters promoting putrefaction; and if this operation is properly and carefully performed, the tooth may occasion but little uneasiness for a number of years. And yet it is no less true than singular, that few of our Dentists know how, or with what, most effectually to plug a tooth.

Although the teeth are subject to decay sooner than other bone, yet I am fully convinced that this is often prematurely hastened by improper management: the care of the teeth therefore is an object of the highest importance; and as it is one of the principal means of preventing the tooth-ach and other diseases dependent

D

thereon,

Prevention
of tooth-
ach,

thereon, demands our most serious consideration.

The following observations are the result of much experiment and reflection, and should be studiously engraven on the mind of every individual who is solicitous to preserve a sound and healthy state of the teeth and gums to the most remote period of human existence; which can only be derived from an uniform attention to

THE
MANAGEMENT
OF THE
TEETH AND GUMS.

AS the teeth then are so liable, from Management of the teeth and gums. their office, to be affected by matters taken into the mouth, the first and most natural precaution is to remove these, before they can act against their surface, or any effects of heat, retension, or putrescence take place. The practice there- Washing the mouth. fore of washing the mouth, especially after

after eating, cannot be too strongly recommended and inculcated.

In support of this I would observe, that where tartar also forms, it is most observable in the morning adhering to the teeth and gums, which obviously points out the propriety of the teeth being regularly cleaned every morning at least; and from the gums inclining to become soft and spongy, as well as from this adhesion of tartar to the enamel, a proper tooth brush should be employed for the purpose of more effectually removing such noxious and offensive matters.

With respect to the brush, numberless opinions have prevailed, as well in regard

to form as texture; all more or less erroneous, and some of them productive of effects more distressing than the interested views of our Dentists will allow them to acknowledge.

Far removed however from the influence of such views, it becomes my province, to direct that my readers should be provided with a brush perfect in its effect, and at the same time incapable of producing any mechanical injury.

As I shall have occasion to prove hereafter that very soft bodies are capable by friction of producing abrasion of the enamel, suffice it here to observe that those remarks will ever apply to the choice of a tooth-

tooth-brush, which should be made of *fine* and *soft* hair, perfectly free from dust and other extraneous matters which might be injurious to the teeth by scratching the enamel or separating the gums from their root, which effects I do aver must ever arise in some degree from the use of *hard brushes*.*

I have already observed that, to preserve the teeth from caries, it was essentially necessary to prevent the admission and retention of air, or other noxious matters, to their bony substance.

Common sense alone then must point out the propriety of supporting a due and natural adhesion of the gums to the
teeth;

* Brushes of a proper form and texture may be had at Messrs. Jacob and Tebbs, No. 163, New Bond-street.

teeth; for unless a firm adherence is maintained, air and other bodies will be insinuated and retained between them, which either by mechanical or chemical action must ultimately inflame the one, and wear away the other.

Thus it will readily be understood, why the internal structure of a tooth is so frequently found to have been entirely destroyed, while the enamel itself has sustained but little or no injury.

I am also decidedly against brushing ^{Mode of brushing teeth.} the teeth in a *horizontal direction*, because I believe this mode more likely to separate the gums from the teeth, and am well persuaded, that extraneous matters are
not

not so effectually removed from their interstices, as is found to be the case when they are brushed in a contrary direction.

Tooth powder.

If tartar is already formed on the teeth, in addition to washing the mouth, a tooth-powder may be used with advantage.

This powder however should be purely vegetable, or of an absorbent testaceous kind, but perfectly free from acidulous, gritty, or spiculated matters. For if it partake of these qualities in the most trivial degree, it may cleanse no doubt but it can only do this at the *certain expence of the teeth themselves.*

If

If, however, the tartar has formed a firm solid body, adhering inseparably to the teeth, and forming, as it were, a part of their substance, the best practice will be to separate this by proper instruments, ^{Scaling Teeth.} after which the method here proposed will be found effectual for preserving them in a pure and healthy state.

I would, however, recommend my readers to be cautious whom they employ in the performance of this operation. As, if the operator should in the smallest degree interfere with the enamel, he may in one moment produce more injury, than whole years of subsequent attention could remove or prevent.

E

Instead

Instead of the safe practice here recommended, persons anxious only to have their teeth *whitened*, without regard to the means employed, have had recourse to certain modes of effecting it, which, though answering the purpose in the mean time, have in the end, been attended with the most pernicious consequences.

Friction
and solu-
tion.

These methods, however numerous, or or however various, may all be reduced under two heads, being the effect of strong mechanical friction or chemical solution.

The former depends on the use of certain powders, variously coloured and disguised according to the views of their inventors,

inventors, in the composition of which pumice stone or some other gritty substance forms the base and principal part.

These preparations rubbed daily with the assistance of a brush against the enamel, produce, no doubt, a polish and brightness on its surface (*as does emery and sand upon steel*) but, from the strong friction required, this effect can only be produced at the expence of the enamel, and must inevitably occasion a partial or general detrition of it, proportioned to the frequency of its repetition and the roughness of the body made use of.

That this is really the case I am ready to manifest by actual experiments—Experiments

ments easy to be made by any one whose laudable thirst for truth may not allow them to rest satisfied with my bare assertion. For instance:

Experiments.

Effects of friction.

If a sound human tooth is placed in a vice with the convex side upwards, and rubbed with a brush, charged with any of the empirick tooth-powders, in less than an hour by continuing the rubbing, the enamel of that part exposed to the friction will be entirely destroyed, and the bone immediately under that part of the enamel to which the friction has been so applied will be left in a state of denudation.

In repeating this experiment with the different compositions sold under the title
of

of tooth-powders, I have uniformly found the same effect take place, only varying a little in the time required, according to the fineness of the powder and the quantity of mineral acid with which they abound.

From these facts a calculation may be formed to ascertain pretty accurately what length of time would be required for the entire destruction of the enamel supposing such powders to be used daily, and rubbed for each time one fourth of a minute only. By such calculation it will be found to require only *four* years—if rubbed for the like time every other day only *eight* years, and so in proportion, commencing from the age of twenty or upwards.

To

To render the above statement still more conclusive as a fact beyond the power of controversion, it need only be observed, that the teeth *rarely* or *never* receive any renewal of the enamel, when it has once
 Enamel never renewed been worn away. That it encreases in growth and fineness only till the age of twenty; and that after that period it receives from nature no addition, but on the contrary gradually decays, so that by the age of thirty or forty it will frequently be worn away.—Nor has its
 Enamel, its thickness. original thickness, even in full growth, ever been found to exceed the *twenty-fourth part of an inch*, and but rarely exceeds one thirtieth. How soon then must continued friction alone, without the intervention of other matters, produce abrasion on so thin a structure.

The

The mischief of this practice many have attributed less to the powder than to the brush that applies it, and have therefore substituted a cloth in place of the latter. To prove, however, that this idea was ill founded, the same experiments were repeated, employing a cloth ^{Experiments with cloth.} instead of the brush.—The same effect was uniformly found to ensue, with this only difference, that the cloth (not entering like the brush into the interstices of the teeth) did not render the polish so complete.

At the same time, it must be allowed, that although as commonly prepared, and as generally used, these powders are attended with the effects described, yet certain preparations, under certain restrictions,

tions, (since they contribute so soon to give a polish and whiteness to the teeth) may be permitted to be used in a sparing and judicious manner: hence,

When powders may be safely used.

1. When the teeth possess a thin scale of tartar, they may be applied till this is worn off, for till then they can do no injury against the enamel.

2. After a thick tartar has been removed by instruments, they may be employed until the teeth are freed of all discolouring matter: and

3. Where the teeth are not regularly cleaned, an occasional use of them, merely to rub off the tartar, will do no harm.

From

From these applications to the teeth, whose action depends on mechanical friction, those next should be examined whose operation is the effect of *chemical solu-*^{Chemical solution.}
tion.

Almost every tooth-powder in general use bears in its composition matters capable of effecting this solution; but more especially those sold under the name of *lotions* or *tinctures*, which I do aver in^{Lotions and tinctures.} every instance contain a certain proportion of mineral acid. Hence they turn out, when examined, to be very powerful menstrua in softening and destroying the enamel.

They

They are much more easily applied than the powders, are very quick in producing their effects, and are therefore too often preferred. But in proportion to the quickness of their operation are their bad effects produced; and surely the slower any effect is produced on the enamel, the safer is the action of the remedy.

All tinctures* and lotions then for the teeth I do affirm, are composed of mineral acids, diluted and concealed under various artifices; and that this is the case must be clear to every individual who will

* The tincture which bears my name is formed by digesting the pyrethrum and astringent gum, in low proof spirit, without the smallest particle of any mineral acid.

will be at the trouble of examining them on the following principles; and

I. From their sour, astringent taste, conveying to the teeth a peculiar rough sensation.

Principles
on which to
ascertain the
presence of
mineral or
other acids.

II. From their effervescence on the addition of any alkali; as *volatile spirit*, *salt of tartar*, or of *wormwood*, &c. and

III. From the known effects of mineral acids on the teeth, when submitted to their action by way of experiment.

From a variety of experiments which I have made on this subject it appears, that a mineral acid is the only men-
struum

Vitriolic
acid.

struum by which the enamel of the teeth can be *speedily* cleaned; and that though all acids are powerful solvents of the teeth, yet that the vitriolic is the only one, which has also the singular effect of whitening them. Hence it becomes necessarily a principal ingredient in the composition of all such nostrums. It may further be observed, that even in its most diluted state, the effects of this acid on the enamel, are the same; and though numberless attempts have been made to meliorate its baneful principle, and at the same time preserve its property of whitening the teeth, yet those properties cannot be disjoined, and I can with confidence assert, that such attempts are merely

merely a deception of their authours on the publick.

Thus all acids have a peculiar tendency to destroy the structure of the teeth, and that in proportion to the strength of the acid principle they possess.

In the nitrous and marine acid, the substance of the teeth will be entirely destroyed in twenty-four or forty-eight hours. In the vitriolic, again, this operation is slower, but not less certain, and seems to take place more on the cementing principle than on the other parts.*

In

See Dr. Nisbet's Clinical Guide.

Vegetable
acids.

In the vegetable acids, though this effect is proportionably weak, yet it does take place in a considerable degree, as is evident from the effects of tartar, and also from the similar known effects of sugar, sweatmeats, &c.

In all the countries where much vegetable acid is used, particularly in the West Indies and other southern climates, the teeth of the inhabitants are seldom good. Sugared meats and liquors, again, produce, even while in the mouth, symptoms of roughness, tooth-edge, and pain; and the teeth of such people as use them in any considerable degree, are susceptible of pain on the slightest impressions from cold or mastication.

To

To these bad effects of substances applied to the teeth themselves, may be subjoined those of others which act upon ^{Effects on} the gums. ^{the gums.} and thus in an indirect manner have the same injurious tendency.

The chief of these (next to hard brushes and the horizontal mode of brushing the teeth) is the use of tooth-picks. Tooth-pick

The gum is spread closely between the teeth, and it is intended by this closeness, that the teeth should support each other in their place. Whatever then has the effect of widening the interstices between the teeth, must tend to destroy the intention of nature; but independent of this, the frequent use of the tooth-pick affords
a more

a more convenient lodgment for the food, which by retention becomes putrescent, conveying to the breath and food the seeds of numberless diseases which take root in the habit.

Brush instead of
tooth pick.

Instead therefore of the tooth-pick a small hair brush (like a pencil) should be used, which will answer the purpose equally well, and obviate most of the inconveniences attendant on the use of tooth-picks.

I have thus marked the outline of a subject which nearly concerns the welfare of every individual. If in the course of this Essay I have spoken freely, it is by

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no means with an intent of casting obloquy on individuals, but through an ardent zeal to expose falsehood and maintain truth:—a zeal, against which the *illiberal attacks of interested Empiricks*, can never prevail. Imputations on any man or class of men, I am aware should be introduced with caution; but it were impossible any policy should justify an *empirick traffic* carried on at the expence of humanity. From such I have nothing to fear.—From the philosophic reviewers I claim only the tribute due to a laudable intent.—From my gentle readers I seek only that satisfaction which must result from their acquiring and preserving, that comfort, health, and beauty throughout a long

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long life, which it is wished they should
derive from the cautions given them by
their devoted Servant,

H. M.

RANELAGH-STREET,
PIMLICO,
1st June, 1798.



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